MONTHLY JOURNAL OF
THE MUSHROOM GROWERS'
ASSOCIATION

MGA BULLETIN

JUNE, 1958 · NUMBER 102

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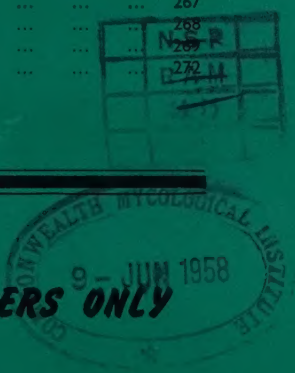

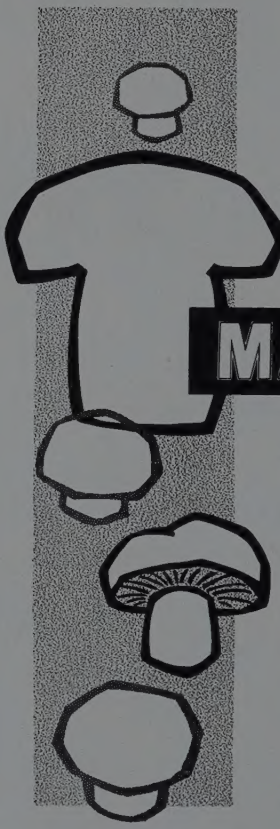

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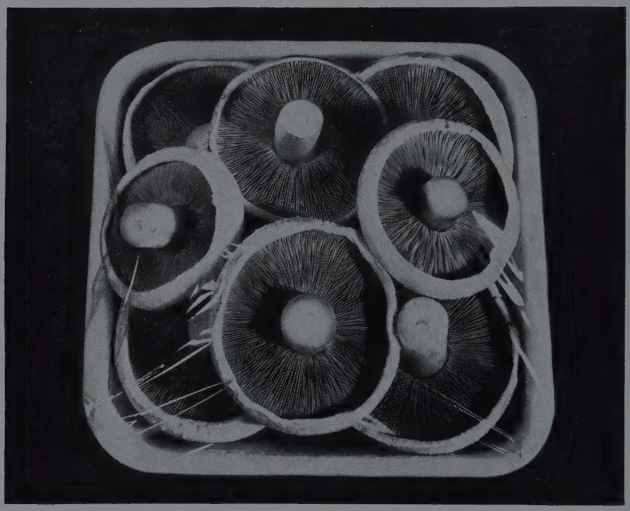

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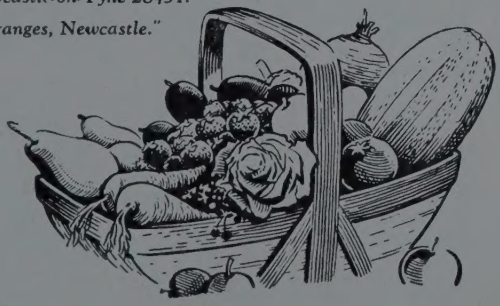

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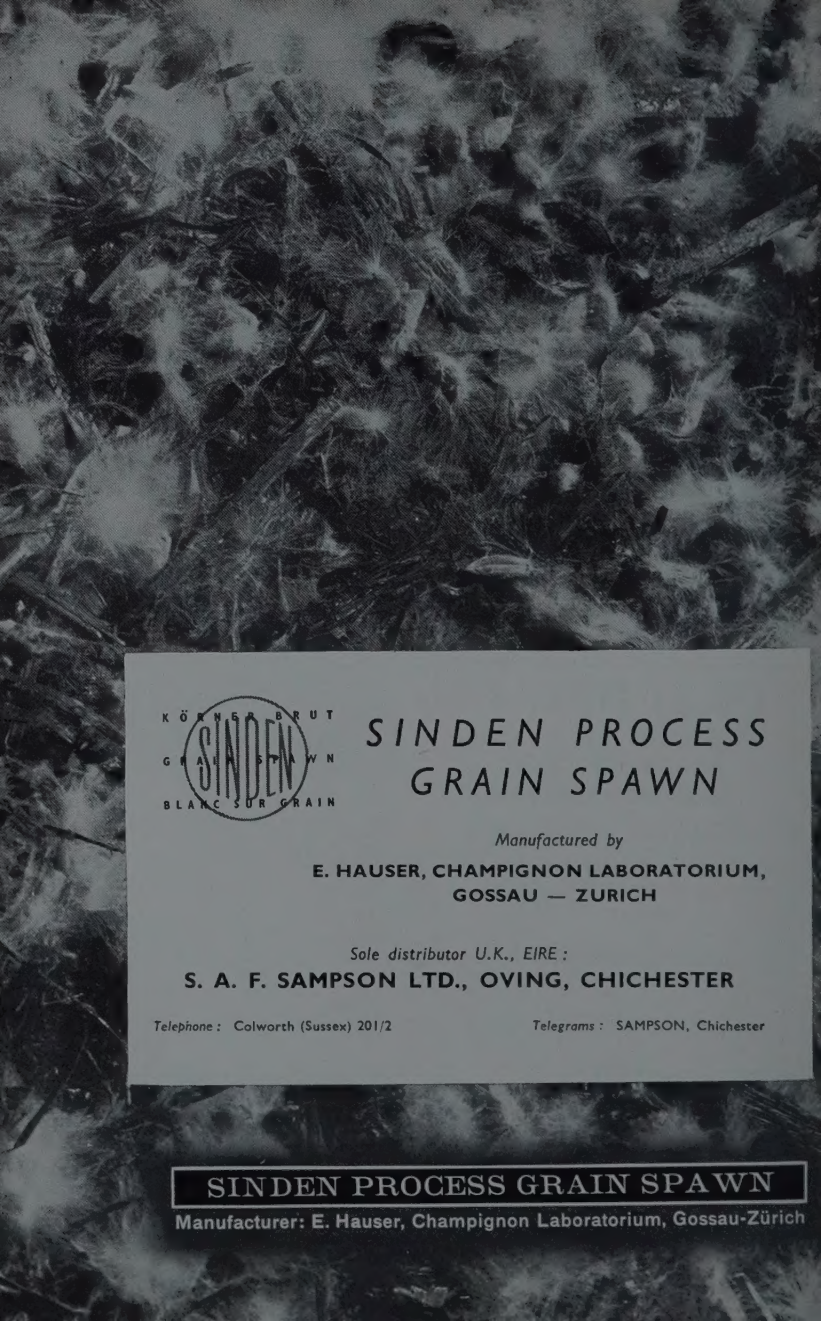
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EDITORIAL

GREEN LIGHT!

The well-nigh unanimous decision taken by growers at the adjourned annual meeting, to go ahead with an investigation into the possibilities of a co-operative processing plant, will be hailed by the far seeing as an important step in the right direction.

Observers of the political scene have noted the Government's avowed intention to keep food prices as low as possible and any following Government, be it Tory or Labour, will doubtless follow this strict line unless it is anxious to commit political suicide.

The economic winds which now rustle through the whole of the farming and horticultural industry cannot be expected to make an exception of mushroom growers, leaving them out on a limb, as it were, in happy immunity.

This processing plant investigation, therefore, is prudent but the greatest danger lies in delay.

As *The Grower* rightly says, the time to act is now. Whilst a processing plant, with all its complications, cannot be brought into being overnight, there is no reason at all why the investigation now proceeding, should not be completed with the minimum of delay and the full report, with recommendations, placed before all United Kingdom growers as soon as possible.

The mechanics of providing a processing plant offer no serious difficulties whatsoever, once the required capital is available.

Nobody would suggest that the project offers no difficulties but certainly these can and should be overcome without much time wasting.

Probably one of the most pertinent observations on the matter, during the adjourned annual meeting discussion, was made by Mr. Raymond Thompson when he said, on the question of the many problems "Others seem to have overcome them."

The need for co-operation among individual growers has never been greater than it is to-day and, with a tight and happy organisation

like the MGA, co-operation between grower and grower and between the sundriesmen in general should not offer any serious obstacles.

Only by co-operation, by cost cutting and by greater efficiency can the smaller growers survive and the sooner this is brought into being the better. Co-operation coupled with greater publicity could see the industry through for many years to come. WRA

WHAT YOU WILL SEE ON 12TH JUNE AT THE G.C.R.I., LITTLEHAMPTON

By **F. W. Toovey**
Director at the Institute

We have been very happy to meet the request, received through the Chairman of the MGA Research Committee, to arrange a special demonstration for mushroom growers on Thursday, 12th June. The Institute's annual Open Day will be held on the previous day and we would normally expect to welcome our mushroom growing friends, along with growers of other crops, on that day. On this occasion, however, we felt there was a good case for a special " open day " for mushroom growers, as the new mushroom buildings are now ready for use and we are all set to develop and expand our research programme in the way we have been hoping to do for so long. Mushroom growers will, I am sure, be glad to have this opportunity of seeing the new research unit in its finished state, and to hear from the research staff something of the work they have in hand at the moment and their plans for the future.

The compost turning shed and attached field laboratories.

The function is timed to start at 2.30 p.m. on 12th June, and I propose to open the proceedings with a few introductory remarks. The new growing sheds and ancillary buildings will then be open for inspection, and it is hoped that a representative of the Institute's architects,

Messrs. Cowper and Poole, will be present to answer questions about their construction. The research staff concerned with mushrooms will also be present, and will explain the experiments they have in progress. By the time 12th June comes round the series of experiments now running in the old Cheshunt house will be more-or-less finished, but they will be left in place for visitors to see and talk about. The first of the new houses was filled on 14th May, and the trays will probably be cased, but not yet in crop, on the day. The second house will be empty, because in order to spread the work out over the year we intend to crop our three houses, namely, the two new ones and the old Cheshunt house, alternately. A cropping schedule has in fact been drawn up to carry us through into 1960 —always assuming that nothing untoward happens to upset our plans!

The growing houses showing the control panels and ventilation intakes.

The layout of the new mushroom unit was illustrated in the January Bulletin. It comprises two adjoining growing houses, each 31 ft. 6. in. by 15 ft. 6. in. internally, and these, together with the old Cheshunt shed (40 ft. by 16 ft.), will give us a total of 2,000 square feet of cropping beds. This is nearly half as much again as was available at Yaxley. The old Cheshunt house, which is a conventional shelf-bed house, has been in use for many years, and a large number of experiments have been carried out in it since its erection at the Institute. The results of these experiments are reported in the Institute's Annual Report and some of them have been referred to in the MGA Bulletin. Last year many improvements were made to the Cheshunt house and we hope it may serve for experimental work for a long time to come. A special feature of the new growing houses is the form of insulation, and a U value well under 0.2 has been achieved.

In addition, there is a covered composting area which has been made large enough for any expansion of the growing facilities which may take place in the future. The composting shed is a substantial brick building with a smooth, sloping concrete floor to facilitate washing down; its internal dimensions are 69 ft. by 24 ft., allowing ample space for turning and straw wetting. Attached to the composting shed are two small rooms, one to be used for storage, e.g., of casing materials, and provided with bins for this purpose, and the other to be used for mixing, etc., and provided with steaming points for sterilizing or for peak heating small batches of compost. Two small field laboratories, each 12 ft. by 11 ft. internally, complete this composite building and

will be used by Miss Gandy and Mr. Flegg in connection with their disease and environmental studies.

The two new growing houses have been designed for use with trays, each 3 ft. by 2 ft., laid out in shelf fashion on steel racks; there are two sets of three tiers with a central gangway in each house. The use of trays will give more flexibility in experimental work than shelves. Each house will hold 96 trays, which will permit a wide range of experimental layouts.

All three growing houses are heated by low pressure steam with thermostatic control of temperatures up to 160° F. and above. There is provision in each house for live steam injection for peak heating, humidification and sterilization. Ventilation in the older house is by manually operated vents in the ceiling and doors, but in the new houses it is effected by fans and ducting, with provision for heating the incoming air, controlled humidification, and re-circulation of the air within the house. The form of the ventilation system in the new houses was the subject of very careful study, and there were seemingly endless discussions of the matter with a good many experts, including those at the National Institute of Agricultural Engineering.

To growers who have to keep their capital costs to the minimum the buildings comprising the new research unit may seem to have been built to unnecessarily elaborate specifications, but it must be remembered that they have been designed for **research work.** The demands for this type of work are very much more stringent than for commercial growing. Thus, for example, it is essential that in each house uniform, controlled conditions can be maintained at all times and in all weathers. We were fortunate in having the MGA Research Committee to consult at all stages of the planning, and they had an opportunity of studying the final plans before they were passed. Growers may rest assured that under their critical, but always helpful, scrutiny no extravagance has been permitted.

The two new growing houses have been allocated to **Mr. Flegg** and **Miss Gandy** for their environmental and disease studies, while the old Cheshunt house will be primarily used for entomological investigations. This is our general plan, but, of course, circumstances may compel us to depart from it from time to time.

I should like to tell you now something about the experimental work we have in progress at present and which we hope to be able to demonstrate and discuss on the 12th June.

Mr. Flegg's experiments are mainly concerned with the effects of the presence of salts in both the compost and casing layer. Two small scale experiments have also been set up to obtain further information on the effect of the addition of nutrients to the casing layer. Practical applications of this work are already being examined in conjunction with the National Agricultural Advisory Service at the Experimental Horticulture Station at Stockbridge House, near Cawood, Yorkshire.

The casing experiments, which form the fourth series to date, are being carried out in the old Cheshunt house, and they are as follows:—

Expt. No. P. 12. The addition of three levels of salt (calcium nitrate) to both compost and casing soil.

Expt. No. P. 13. The addition of several salts, sodium chloride (common salt), sodium sulphate, calcium chloride, and magnesium chloride, to the casing soil.

Expt. No. P. 14. The addition of calcium oxalate to the casing soil as an extra source of nutrient. (**Note:** Calcium oxalate is **poisonous** and growers are warned not to use this themselves until further information is available).

Expt. No. P. 15. The addition of washed and unwashed milled compost to the casing soil as an extra source of nutrient.

Expt. No. S.1. The addition of salts to both a soil and peat casing to observe the effects on both types of casing materials.

Soil is used for casing in most of these experiments for convenience in subsequent analytical work. The widespread use of peat mixtures by the industry is not being overlooked, however.

Miss Gandy's work is at present confined to studying those mysterious cropping disorders which are known variously as " La France ", " Watery Stipe " or " Brown " disease, and we are endeavouring to give this aspect of our programme every priority. Experiments are in progress in the Cheshunt house, and material is now being collected from disease outbreaks all over the country for further experiments to be started in one of the new houses.

In the Cheshunt house most of the top south shelf is devoted to the first of a series of experiments to determine whether the disorders referred to are transmissible. These beds have been inoculated with compost and casing obtained from several affected farms. The rest of the available space in this house is occupied by an experiment to determine if the disorders are transmissible through the mycelium or tissue of abnormal mushrooms. Pure cultures have been made from mycelium and tissues of such mushrooms, and these cultures have been used to prepare spawn. This spawn is then used to inoculate mushroom beds.

Similar experiments are being planned for the new house, but the exact form these will take is dependent on the diseased material received, which is only just coming in at the time of writing. We are greatly indebted to the NAAS officers and others who have collaborated with us in obtaining this material. In the new house every effort will be made to keep down the fly population; this has not been possible in the Cheshunt house because of the entomological investigations in progress there. The installation of an efficient ventilation system will

enable a start to be made in studying the effect of environmental conditions on the incidence and severity of the disorders which are now of so much concern to the industry. More detailed studies will be made in small culture chambers now being designed; the prototype of one of these will be on view on 12th June.

In the laboratory there will be a display of photographs illustrating some of the many symptoms shown by mushrooms affected by the disorders under investigation. Pure cultures obtained from abnormal crops have shown considerable variation in appearance and rate of growth. Cultures from badly affected crops have usually been slow growing and lacking vigour, but the significance of this is not known. A collection of cultures showing these variations will be on show. Experiments have been carried out to determine whether the lack of vigour found in some cultures is due to an infective agent which might be made to infect a normal culture. When a normal and an abnormal culture are grown together in a Petri dish, each retains its separate identity and there is no alteration in the appearance of either culture. Photographs will be on show illustrating this. Microscopic examination of tissues showing the " Watery Stipe " symptom has shown that these streaks are invaded by bacteria and that the mushroom tissues in these areas break down. Visitors will have the opportunity of seeing slides showing this.

Research on insect pests of mushrooms is being carried out in our Entomology Department by **Dr. Hussey** and his colleague, **Mr. Wyatt.** The main laboratory study concerns the paedogenesis of mushroom Cecids, and a useful experiment on the role of nutrition in the development of paedogenetic larvae has been completed. Taxonomic studies continue, and a new species of mushroom Cecid has recently been discovered in Cornwall.

Attempts are being made to develop a sound technique for breeding Phorids in the laboratory to facilitate work on the parasitic eelworm *Bradynema.* The light and suction traps operated in the cropping house are providing useful data on population trends of all flies associated with mushrooms.

Preliminary studies have been made on the efficiency of some insecticides against Cecid larvae *in vitro* and, in the cropping house, a randomised experiment, undertaken in collaboration with the Crop Protection Department under **Mr. Read,** is in progress, comparing the toxicity of a range of insecticides incorporated in the compost prior to peak-heating. The results from these investigations will be displayed in the laboratory, together with apparatus for extracting and rearing mushroom mites and Collembola.

That, briefly, is what we hope to be able to show on 12th June, and it only remains for me to offer a warm invitation to as many growers as possible to come along on that day. We shall be very pleased to see them. A set tea will be provided for visitors, but in order that we may make the necessary arrangements with the caterers we must have a firm

estimate of the numbers expected. If you are coming, therefore, would you please be good enough to complete the form enclosed with last month's Bulletin and return it by the due date.

NOTE: Members of the MGA are asked to note that the most suitable railway station regarding the Research Institute is Littlehampton.

SPECIES AGARICUS CAMPESTRIS

By **Ruby Weyburn Tobias**

There on the path,
A little aside,
More early than common
And dressed like a bride—
Pink pleated petticoat,
White satin skirt.
Appearing from nowhere:
Sly little flirt!

I stopped—she was tiny—
Faint odours swathed round her,
All leafy and piny.
Mine, mine! I had found her,
So soft and so sweet,
A morsel to eat!
And that was the reason
I broiled her with meat—
My first mushroom treat of the season.

(submitted by Dr. P. J. Bels of Holland).

CORRESPONDENCE

PROCESSING PLANT

The Executive Committee asked me to produce, together with Mr. Stanley-Evans, a report outlining a scheme for setting up a co-operative mushroom-processing plant, the growing need for which I have felt and stressed for some time. A briefed-down version of the report appeared in the April Bulletin.

Unfortunately the person called upon at the A.G.M., to outline the scheme, described a completely different one. The following speaker not only confused the two schemes but misunderstood the main points of the original one. It is understandable therefore that the ensuing discussions became so involved and detailed that it was difficult for your reporter to make an accurate report of what was said.

However, since it was finally decided to set up a committee to study the whole matter, there seems little point in correcting more than one of the points which struck me when I read the May Bulletin:—I am reported as saying, that under the scheme "mushrooms would of course be sent direct to the cannery". Having in mind the goodwill of my friends in the wholesale trade, I catagorically deny making any such statement. I regard such a proposal as unwise and unworkable and disassociate myself from it entirely. The whole scheme, outlined in the report, clearly and specifically **depends** on mushrooms going through the normal wholesale channels. Incidentally a re-reading of even the briefed version of the report printed in the April bulletin would, I suggest, clarify much of the confusion about it that has become evident.

Guy Reed.

WORLD'S PRESS DIGEST

Mushrooms were in abundance, but demand was only fair (*Nurseryman Seedsman*, April 3/58). Too many mushrooms had been sent, causing trade to be poor (*Nurseryman Seedsman*, April 10/58). Mushroom arrivals have been slightly heavier and **prices** have tended to ease although quality is good (*Fruit Trades' Journal*, April 12/58). The mushroom trade had looked up, and it was a case of a fair demand meeting heavy supplies (*Nurseryman Seedsman*, April 17/58).

Chief complaint at a meeting of the South-East Oxfordshire Group of the NFU, attended by Mr. John Hay, M.P., was **rising costs** but static prices, a case of which was described by Mr. F. I. R. Nevill, of Longwood and Culham Nurseries, Abingdon. He was selling mushrooms at 4s. per lb. in 1946 and the wholesale prices was still 4s. per lb. to-day; but his wage bill was more than doubled.

Grower, March 8/58.

Graphs of wholesale net **prices** for mushrooms, based on our market reports, show that while there was a rise to nearly 4s. per lb. in 1951, there has since been an almost consistent tendency for prices to droop. Last year showed a heavy summer slump, and prices this year have not yet reached the level of those at the beginning of 1957. And 1957 showed the lowest average price since 1941. Mushroom growers in this country are well organised and intelligently led. We believe we can climb out of the present trough in the graph.

Grower, April 12/58.

Many shopkeepers don't like **brown mushrooms** because they weigh heavy and there is not much to show for 1/4 lb. (Yet the housewife doesn't lose as, when cooked, the brown doesn't shrivel as much as the white). These brown mushrooms should always be peeled before using.

Grower, March 29/58.

Central Horticultural Exchange Ltd., of Agriculture House, Knightsbridge, S.W.1, is a non-profit-making company formed by pre-packers to distribute a full range of members' supplies of **pre-packed produce.** This object has been fulfilled and, every day of the week, CHEL transports supplies direct to retail customers within a twenty-mile radius of Hyde Park Corner. *Produce Packaging*, April/57.

Premises used by Paul-Pac Ltd., at Eastcote, Middlesex, for pre-packing fresh fruits and vegetables have been **rated as a factory.** This is the second successful appeal made recently by a prepackaging firm against proposals made by local valuation officers to treat prepacking stations as a non-industrial hereditament at a very much higher rateable value. *Produce Packaging*, April/58.

Galvanised sheeting is very liable to corrosion in the Swedish climate and asbestos cement materials are very subject to mechanical damage. **Aluminium** only requires protection when in contact with unprotected metals, concrete or lime, etc., and slight surface damage does not have any serious effect, according to G. Ortenstrand in *Light Metals*, 20, 1957 *Agricultural & Horticultural Engineering Abstracts, Vol.* 9 *No.* 1/58.

In France, where they study these things more closely, the **truffle** is accorded a higher place than the *Agaricus campestris*, but that may be because it is scarce and hard to find and their digestive systems have learned to cope with it. So far our own has always been worsted in the encounter. *Medical Press*, April 2/58.

To improve efficiency of all types of industrial **boilers,** the National Industrial Fuel Efficiency Service (71 Grosvenor Street, W.1) has introduced a comprehensive annual arrangement of regular plant visits, which also covers training of boiler operators. NIFES claims that most firms will get fees back twice over within the year, some will recover much more. *Scope*, April/58.

British flowers will be receiving full **publicity** in the autumn if plans go through. The scheme proposes that retailers should contribute a penny per package on flowers bought from the markets. Salesmen will be asked to make the deductions and the cost of the collection will be regarded as the wholesaler's contribution. But the Wholesale Federation is cool. *Grower*, April 5/58.

Dr. H. Rubin, of the California Institute of Technology, said he had watched normal chicken cells in a glass dish turn cancerous less than a week after having been inoculated with a virus which had long been known to cause malignancy in living chickens; after the **virus started the cancer process** it appeared to disappear but the cancer kept growing. Dr. S. E. Luria, of the University of Illinois, suggested that though human cancers may be caused by viruses, the agent of malignancy may never be recovered from patients because the virus hides itself by becoming a gene or element. *Daily Telegraph*, April 8/58.

Parathion (4 lb. emulsion) used in solution at 1 pint to 100 gallons of water killed more than 90 per cent. of **nematodes** in gladiolus corms, in experiments by the Gulf Coast Experimental Station in Florida. *Grower*, April/12.58.

Mr. H. M. Mizen, Chairman of the Tomato Board, told the NFU Glasshouse Committee that the Board intended to seek powers to trade in and **process** tomatoes and cucumbers (*Grower*, April 19/58). The Tomato Board aimed at a scheme whereby it would have the power to step into the market to buy and sell at any time **to keep the market buoyant.** (*Grower*, March/1958.

A soil fumigant known as Vapan has shown great promise against many pests and diseases, including eelworm, *Verticillium* and *Fusarium*. If this promise is fulfilled, ideas on **soil sterilization** could be revolutionised. Although not available in this country trials are being conducted here, according to Dr. H. G. Hessayon, speaking at a growers' meeting at Waltham Cross organised by Pan Britannica Industries. *Commercial Grower*, March 14/58.

A market garden producing tomatoes under glass and general vegetable crops in the open has been changed into one of the biggest mushroom-growing establishments in the country in eleven years. (The story of **Wrington Vale Nurseries,** near Bristol, is told in a page article). *Grower*, March 8/58.

It is curious how attacks by a pest can be repeated in a run of crops, then cease as mysteriously as they began, perhaps to be replaced by some other insect as the dominant pest on the farm, writes B. D. Moreton in a two-page article on mushroom **pest control.**

Grower, March 15/58.

Late on Tuesday night **fire** ravaged a large timber and asbestos building at Leigh Sinton Farm, and the owners lost a mushroom crop of well over 1,000 lb. It is believed that two coke-burning stoves, required to keep the crop at a temperature of 60 degrees, may have been responsible. *Malvern Gazette*, March 7/58.

Since 1955 five new herbicides have been added to the range available for **weed control** in cereal crops, all suitable for application by using low-volume sprayers. J. D. Fryer in *Agriculture*, March/58.

A can of creamed mushrooms recently examined by the Worcestershire County Analyst contained an excessive amount of tin—290 parts per million—resulting from corrosion of the container. " There is no real evidence of cases of poisoning attributable to **excessive tin content** in canned foods, but 250 parts per million is recommended as the maximum consistent with good commercial practice," said Mr. Love. The can was from very old stock, and the remainder was removed from sale. *Worcester Evening News*, March 13/58.

The Thermatic oil-fired **air heater** can be used for heating or cool air circulation. Price £207—459 for models of varying outputs. Made by Thermatic Heating Co., Carlton Road, South Croydon, Surrey.

Grower, April 12/58.

WATERY STIPE, Etc.

As far as one can ascertain, severe outbreaks of Watery Stipe seem to be rare at the moment. There is still nothing to suggest we are dealing with an infectious disease, although we shall probably find that some strains of the mushroom are not as liable to the trouble as others. Some, in fact, may be able to stand adverse conditions better than others.

Dr. I. F. Storey in a page article in *Grower*, April 12/58.

At the top-level scientific conference at Littlehampton on 9th January, Mr. B. D. Moreton told us of his beaker-scale trials; does Dr. Storey honestly contend they did not constitute more than a " suggestion " of an infective principle? An even more forceful " suggestion " is provided by Dr. J. W. Sinden's work on spawn made from rhizomorphs taken from compost in affected beds.

Fred. C. Atkins in *Grower*, April 19/58.

The specific **acaricide** known as Tedion V18 was developed in Holland in the laboratories of N. V. Philips-Roxane. It has a strong ovicidal and a very strong larvicidal action. The effect against (Spider Mite) adults is insufficient, but it has a retarding action on reproduction.

Laboratory tests have clearly shown that the adult females which have been in contact with a deposit of this material are no longer capable of producing fertile eggs.

B. W. J. Wulff in *Commercial Grower*, April 11/58.

National Building Studies Research Paper No. 23 (3s. 6d.) contains three sections describing the mechanism of roof **condensation**, experiments carried out on typical factory roof constructions, and conclusions and recommendations. *Scope*, April/58.

Heating problems in their mushroom houses have been overcome by two brothers, N. & A. W. McGladdery, of Cowley, Middlesex. Heating in one house is by four fan heaters, each of 5 kilowatts. In the other, a 22 kilowatt heater in a modified grain drier with a .7 BHP fan is used. This circulates the warm air through the house by means of ducts in the concrete floor. The air is carried back to the fan *via* a metal duct running through the length of the house at ceiling level. The houses are 47 ft. by 19 ft. by 9 ft. clear headroom. Running costs are approximately £4 per week for each house during the winter period.

Commercial Grower, April 11/58.

A **hormone** known as Fertidyne is said to stimulate the bacteria in the soil causing them to convert particles of minerals, crops residue and fertilizers into readily available nutrient for plants.

Grower, April 12/58.

A cold day is more chilling to the blood when the **wind** blows. By a simple formula the Canadians add together the number of degrees below zero and the strength of the wind. The two combined give the " chill factor " and a much more realistic indication of the weather.

Anthony Smith in *Daily Telegraph*, March 24/58.

Unfortunate **women** turning into mushrooms are the subject of novel by John Blackburn (*A Scent of New-mown Hay*, Secker and Warburg, 13s. 6d.). Foreign Office Intelligence and a young scientist and his wife track down the source of the plague.

News Chronicle, March/58.

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Continued on page 268

SIMPLE DEVICE FOR STORAGE OF MUSHROOMS

By Erwin v.d. Muijzenberg, *Institute of Horticultural Engineering at Wageningen*

As we have not a cold store at our disposal, the storage of the cropped mushrooms provided ever recurring difficulties. The same may well be the case with many other mushroom growers, especially when the mushrooms have to be cropped on Sundays. Then the quality is reduced in such a way that next day the price is often nearly halved at the market. Besides there is a considerable loss of weight.

By placing the mushrooms outside under a pent-house during cool weather the loss of quality was reduced, but this way was inconclusive. The falling in quality consisted of brown-discolouration and opening of the cropped product.

As the mushrooms are cultivated in a room with a high air humidity my co-worker Mr. N. Veenendaal had the idea of wrapping a chip in plastic. With a temperature of 55° F.much condensed water was deposited on the plastic, and the upper layer of mushrooms, which had been touching the plastic, bore a slight discolouration. The colour of the underlying layers was quite good.

From this experience a lath-frame was made, and spanned with plastic. In this way a plastic cover was produced.

The quality of the mushrooms was quite good, but a loss of weight of $1\frac{1}{2}$ oz. on a chip of 3 lb. was recorded. The mushrooms were also less soft than the freshly picked ones.

In order to prevent this loss a zinc reservoir with $1\frac{1}{2}$ in. water, was placed under the cover (see picture). In this water laths were laid, on which the chips were placed. After 24 hours it appeared that the lower chips had gained in weight through the lifting of moisture in the wood-made chips. In this connection a strip of hard-board was laid under the chips.

The results are now quite good. Any difference in quality between the mushrooms which have been stored in the stated way and the newly cropped ones, is not perceptible even after two days and there is no price difference on the market.

The cover must not be too large and the less space remaining under it, the better the results obtained.

With a temperature of 55° F. the results are very good. Possibly the temperature could be something higher, but we have not gone into this yet.

In our opinion this is a good, simple device for growers who do not have a refrigerating plant.

MORE AND MORE GROWERS USE MOUNT SPAWN for consistently high yields

All Spawn is sent direct to you from the Laboratories at Canterbury by passenger train and carriage paid.

MOUNT MUSHROOM SPAWN

This crop produced 1 lb. per sq. ft. in 7 days

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INCOME AND EXPENDITURE ACCOUNT F

	£ s. d.	£ s. d.
Salaries, Clerical Assistance and Superannuation Contributions		1,648 0 3
Office Rent		210 0 0
Postages, Printing and Stationery		388 16 4
Telephone and Telegrams		55 19 7
Travelling, Hotel and Entertainment Expenses		71 16 0
Cost of Annual General Meeting and Luncheon *less* Sales of Tickets		50 17 6
Cost of Executive Committee Meetings		137 9 10
Southport Conference		239 2 10
Cost of Bulletins (including *Digest*) and Literature	2,153 8 6	
Add: Stock of Saleable Literature 1st November, 1956	123 0 0	
	2,276 8 6	
Less: Sale of Advertising Space in Bulletin, Sale of Bulletins and Literature £2,105 7 6		
Stock of Saleable Literature, 31st October, 1957 100 0 0		
	2,205 7 6	
		71 1 0
Contribution to National Farmers' Union		150 0 0
Subscriptions to Trade Journals, etc.		18 7 0
Audit and Accountancy		57 15 0
Depreciation of Office Equipment		15 0 0
Library Books written off		4 3 2
Cheque Books, etc.		2 8 8
General Expenses		47 9 3
		£3,168 6 5

PUBLICITY FUND ACCOUNT FO

	£ s. d.	£ s. d.
Show Expenses, *less* Receipts:—		
Tea Centre	493 18 5	
Eastbourne Exhibition	122 17 6	
Royal Show	89 2 0	
Food Fair	27 4 9	
		733 2 8
Display and General Advertising		807 12 11
Public Relations		731 5 5
Paper Bags and Cartons *less* Stock in hand		259 15 2
Cost of Literature, *less* Sales and Stock in hand		81 17 3
Committee Meeting Expenses		100 14 6
Travelling and Entertainment Expenses		16 15 4
Administration Expenses		750 0 0
Printing, Postages, Telephone and Miscellaneous Expenses		57 10 11
		3,538 14 2
Balance, being Excess of Income over Expenditure for the year, transferred to Publicity Fund		955 10 6
		£4,494 4 8

OUNTS

E YEAR ENDED 31st OCTOBER, 1957

	£ s. d.	£ s. d.
Subscriptions from Ordinary Members	1,728 9 11	
Subscriptions from Associate Members	480 18 7	
		2,209 8 6
Receipts from Rent of Space at Eastbourne Exhibition, Sale of Tickets for Dinner and Dance, and Sundry Receipts	1,113 10 0	
Less: Expenses..	987 10 9	
		125 19 3
Sundry Receipts		6 5 6
Proportion of Administration Expenses charged to Publicity Fund		750 0 0
		3,091 13 3
Balance, being Excess of Expenditure over Income for the year, transferred to Accumulated Fund		76 13 2
		£3,168 6 5

YEAR ENDED 31st OCTOBER 1957

	£ s. d.	£ s. d.
Spawn Levy		3,630 17 3
Contributions from Salesmen..	699 17 7	
„ „ Sundriesmen	111 5 0	
		811 2 7
Sundry Receipts		52 4 10
		£4,494 4 8

BALANCE SHEET

LIABILITIES

£		£ s. d.	£ s. d.
	SUNDRY CREDITORS AND CREDIT BALANCES:		
273	General	260 9 10	
4	Publicity	804 7 11	
300	Estimated Subscriptions received in advance	600 0 0	
			1,664 17 9
	PUBLICITY FUND:		
	Balance as at 1st November, 1956 ..	1,320 18 9	
	Add: Excess of Income over Expenditure for the year to date	955 10 6	
1,321			2,276 9 3
	ACCUMULATED FUND:		
	Balance brought forward—1st. Nov., 1956	821 8 11	
	Less: Excess of Expenditure over Income for the year to date	76 13 2	
821			744 15 9
£2,719			£4,686 2 9

110 CANNON STREET,
LONDON, E.C.4.
11th March, 1958.

A PEEP INTO THE PAST

By **Stanley J. Spencer***

Lunching at Agriculture House, Knightsbridge recently, I happened to sit at the same table as your worthy secretary and his predecessor, and, not unnaturally, Mushroom problems were discussed. As a result, I have tried to recall as many details as possible of a visit some 25 years ago to the premises of the late Mr. Harnett at Goff's Oak.

I was fortunate to be in a small party invited to visit Mr. Harnett in what proved to be a very interesting experience. Over a cup of tea in his office, Mr. Harnett explained that his reason for taking up pure culture spawn was to break the United States monopoly in this form of spawn culture, the only British source of supply then being the old style " bricks " impregnated with mycelium of the wild mushroom. We were conducted into an airlock cubicle and each member had to don a white overall and was subjected to a spray of formaldehyde from head to foot, and instructed to vigorously wipe his shoes on a formaldehyde-soaked mat. Not until this exercise had been completed were we admitted into his laboratory.

Once inside, the details were graphically described to us. Under conditions of absolute hygiene, the walls of the room were lined with glass-doored cupboards, electrically heated and thermostatically controlled to the desired temperature. These cupboards were filled to

AS AT 31ST OCTOBER, 1957

ASSETS

£		£ s. d.	£ s. d.
—	CASH IN HANDS OF SECRETARY		6 10 0
	CASH AT NATIONAL PROVINCIAL BANK LTD.:		
447	General Account	237 17 8	
1,340	Publicity Account	3,420 1 9	
			3,657 19 5
	SUNDRY DEBTORS AND DEBIT BALANCES ..	751 13 4	
	Less: Reserve for Doubtful Debts ..	50 0 0	
585			701 13 4
173	STOCK OF SALEABLE LITERATURE:		
	(as estimated by Secretary)	115 0 0	
—	Stock of Cartons	50 0 0	
			165 0 0
	LIBRARY BOOKS—Balance as at 1st Nov., 1956..	4 3 2	
4	*Less:* Amount written off	4 3 2	
			— — —
	OFFICE EQUIPMENT—Balance as at 1st. Nov., 1956	170 0 0	
	Less: Depreciation	15 0 0	
170			155 0 0
£2,719			£4,686 2 9

We hereby certify that the above Balance Sheet has been correctly drawn up in accordance with the books, records, vouchers, information and explanations given to us.
SPENCER, FELLOWS & CO. *Incorporated Accountants.*

capacity with quart size milk bottles from which the bottoms had been removed. Each bottle was filled with manure compost, in batches at various stages of development. Mr. Harnett had three varieties—the brown, the white and a hybrid cream. Hybridisation was performed by laying a branched piece of mycelium across a similiar piece growing in the compost, and he showed us that these pieces knit, or fused, and continued to grow and spread through the compost, the resulting mycelium being of a hybrid variety. To the best of my recollection, he crossed both brown and white, cream and brown, and cream and white in conducting his research.

Other cultures were from spores, presumably to maintain seedling vigour in his strains. At the time of our visit, he had embarked on commercial production of spawn, and we were shown a long shed, crammed full with these milk bottles, stacked on shelves, and maturing for sale. Mr. Harnett had a block of barn-type glasshouses, canvassed over to exclude light, in which he was producing mushrooms on small ridges, which, when we saw them, were a mass of mushrooms in the three main varieties mentioned. To one who had grown mushrooms as a catch crop from the old-fashioned "bricks," the quantity of 'rooms on these ridges was a real eye-opener, and, but for the fact that I was by then heavily involved in another form of culture, I might well be to-day a member of your Association.

* Mr. Spencer is Chairman of the NFU Nurserymen's Committee.

GIVE THOSE YOUNGSTERS A CHANCE

says **J. Watts**

During the past year I have visited quite a number of Mushroom Farms and I was left wondering if there isn't more than meets the eye in the proposed provident scheme.

As a Youth Leader I have been particularly worried that despite assurances from the Ministry of Agriculture and numerous cries from would-be employers, the youngsters of to-day are NOT getting a fair deal on the land. Indeed, the position in Horticulture would appear to be even worse than Agriculture.

I am not suggesting that situations were only available as farm labourers and I firmly believe that every boy or girl worth their metal should start as such. But what then? No youngster with a reasonable amount of intelligence, however much he wants an open-air life, would stick labouring in our industry, knowing full well he is hardly likely to be even a charge hand before he has had 25 years' experience. The prospects after an initial training period are just not there.

I am positive the Mushroom Industry is as guilty as any other section of Agriculture. During all my visits to farms I did not see more than three teenage males on the staffs concerned.

Let's face it: if we don't get in a nucleus of the younger generation we will be really hard pressed for men to carry forward new ideas in 15-20 years' time. Already pure farming and the glasshouse horticulturist is drifting into the hands of the big man. If we are not careful the small man will be squeezed out of mushrooms as well, leaving room only for those with foresight planned for the future. And do not forget that 95% of us are small growers. Of all the branches of agriculture our industry is the one that cannot stand still and use old practices.

It must keep up with modern trends and that means young men with alert minds brought up in a modern school of thought. We've all at one time or another issued orders to particular members of the staff and received the reply, "Well, my dad never did it that way." How we would have loved to knock some heads together on that occasion. And yet surely the exclusion of younger " fields of thought " on mushroom farms is merely the same sort of thing?

I have heard of two instances lately where two young managers have advertised for suitable positions. The demand for their services was good but in three-quarters of the cases, because they couldn't offer 15 years service as a background, they were not required. Yet they were young men and in any case every grower has different methods. It seems that owners expect managers to be born with a mushroom in their mouths !

From the employers angle I know there is the point " Well why should we spend extra wages on a youngster who may not make the grade." I am not advocating we should to start with. But let them

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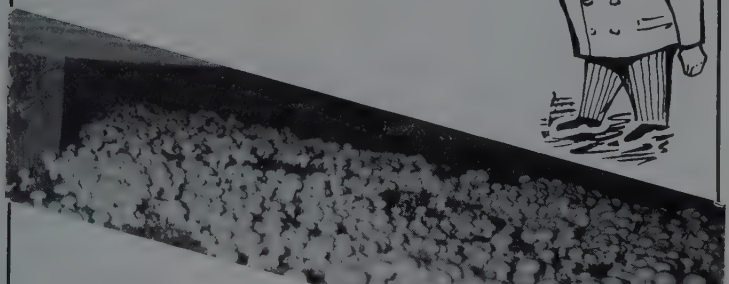
MUSHROOM SPAWN



This photograph—taken on the farm of a Portuguese customer—shows beds in crop on 100% Moist Manure spawn

Darlington's 100% Spawn is exported to the many countries where there is a demand for a good, dependable spawn which can be relied upon to produce heavy crops of finest quality mushrooms. Our Export Department invites enquiries from growers in all parts of the world.

We have established rapid means of transportation to most European countries, and our resident agents are at the service of mushroom growers who wish to try 100% Spawn.

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know it is there after a trial period if they show sufficient interest and gain the necessary knowledge.

No doubt many other employers will be saying, " We will take young men—just give us the chance." The answer is attract them. Create the conditions for them then give them a chance. When a lad arrives on the farm don't just hand him over to the foreman and tell him to make something of him. The foreman no doubt will.

Create the conditions to encourage them. Give the lads a chance, variety of work, not three months in the compost shed all at once. A spell in the packing shed and information on the sales. And don't forget that friendly word each morning (how often this is forgotten) and a walk round the sheds with the boss.

As a final challenge, what firm can appear at one of the farm walks with two teenagers learning the job?

There is also the thought that in 20 years time lads of under 18 will be required to push the wheel-chairs around while aged " Growers " reside in them mumbling under their beards : " Trays or shelves."

Eighteen-year-old George Page, a railway clerk of 7 Chestnut Avenue, Kirkcaldy, was fined 30/- at Kirkcaldy Court for stealing a basket of mushrooms, part of a consignment, railed by a Dysart (Fife) grower to an English firm. Page was stopped by police at 8.10 p.m. on 7th April, and was charged with the offence on 29th April. The basket contained 3 lb. of mushrooms valued at 12/-.

The need for a well proved
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ADCO "M"

As a
SUPPLEMENT
To IMPROVE STABLE MANURE

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For USE WITH WHEAT STRAW

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The first and still the foremost **Mushroom Compost Maker**

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Bruises and aerates–does not shred. CAN BE USED FOR ALL TURNINGS. 3 men handle 25/50 tons per day. Waters as it turns. Stacks up to 5 feet. By using the CULVERWELL MANURE TURNER throughout the whole composting process, the work is reduced to the minimum, time taken is shorter with improved results.

Will pass through a door 2' 10" × 5' 10" with the detachable wheels removed

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A COURSE AT THE GLASSHOUSE CROPS RESEARCH INSTITUTE—LITTLEHAMPTON

By **P. L. C. Dredge**

Having been bold (or mad!) enough to choose mushroom growing as a career, I am faced with a problem—namely where to obtain any practical first-hand knowledge of the subject other than on my father's farm. Unfortunately, the horticultural courses at universities and colleges only just touch on mushrooms and I was advised against working for a degree in Agriculture. By the kind permission of Mr. Toovey, however, I was permitted to visit the Glasshouse Crops Research Institute for a fortnight, as their first student.

I spent most of the first week with the entomologists learning something of the Cecid problem and helping in a very small way with their experiments. At present their work is concentrated on Cecids and, by the addition of various standard insecticides to the compost, they hope to make it impossible for mushroom pests (including Cecids particularly) to live in the compost and at the same time not to reduce the yield of mushrooms. The insecticides used were DDT, BHC, Aldrin and Diazinon.

The second batch of samples was due to be taken while I was there, so I was allowed to take some. These were taken to the laboratory, 20 grms. weighed, put in a filter funnel, covered with water and left overnight. A little of the water was then drained off into a petri dish and inspected under a microscope for larvae. The only pests which appeared were Cecids and eelworms. Cecids were expected in the control plots as the beds had been previously infected with Cecid larvae.

At the same time a check is kept on the fly population. It was one of my jobs to separate the 'catch' from the light trap into Phorids, Sciarids, Sphaerocerids and Cecids. The former two species had to be divided again into males and females; the female Phorids had to be dissected to see which carried (*a*) eelworms (*b*) eggs and (*c*) neither. This certainly gave me a very interesting introduction to the labour involved in research.

During the next few days I was shown some pickled specimens of diseases, some slides of moulds under very high power microscopes and I learnt something of the disease side of mushroom growing. I also saw how pure cultures are obtained. As some spawn was due to be made I was shown some of the stages and learnt how it was made.

The last few days of my visit were spent in the chemistry department, where I learnt some of the details of compost, casing material, environment and so on. The work at present concerns casing material and experiments are being made with the addition of various salts to casing materials. Here I also learnt the basic principles of experimentation—replication, randomisation and local control—and something of statistics and the methods of determining whether results are significant or not. There was a discussion which turned from the English cultivated mushroom to the cultivated fungi of some other countries.

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7/- PER TON

Capelle Straw can be broken down effectively by using **BRADFORD SPECIAL MIX.** The fine **SOLUBLE BLOOD POWDER** used in this activator has a solubility of 94% and is an ideal additive when dealing with this tough straw. Approx. cost of treating 1 ton is **8/-.**

A good spawn run does not always mean a good crop but the possibility is greatly improved if a **BLOOD BASED** Activator is used.

MRA No. 1 still available in limited quantities.

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Whitefield Place, Girlington, Bradford 8

One of particular interest is the Japanese mushroom which is a tree-rotting fungus and it may be possible to grow it in this country but not perhaps on a commercial scale owing to the conservatism of the British public's taste.

On my last day composting was starting for the two new houses which were nearing completion. Synthetic compost is used and turning is by machine. The new houses are insulated by a layer of glass-wool which lies between an outer layer of bricks and the inner layer of breeze blocks. The heating consists of steam pipes and steam valves are installed for use at peak-heating.

The old growing shed, which originally came from the Cheshunt Research Station, is on the shelf system but some of the experimental compost is put into pots. A very interesting feature of the new houses is their bed structure—a galvanized iron framework is bolted to the floor and ceiling and into this framework are placed trays. The ventilation is by through ducting in which a fan, a heater and a humidifier are placed so that the environment of ' brown ' disease can be studied.

A compost shed, soil and tool shed and two field laboratories have also been constructed and with all these new assets, I am sure that those of us who care to go to the Research Institute's Mushroom Day —Thursday, 12th June,—will find our time most profitably spent.

EELWORMS IN STRAW AND MANURE

Dr. H. van Haut had a paper in *Nematologica*, Vol. 1, No. 2 (April, 1956), entitled " Mushroom Mycelium as a Detector of the Activity of Saprobiontic Nematodes in Compost." From this we have extracted the following notes, translated by Dr. H. C. Bels-Koning.

Mushroom mycelium is very sensitive to large populations of *Rhabditis* eelworm, and therefore it was chosen as an " indicator " in some research work on green plants.

Mycelium on malt extract agar inoculated with eelworms remained normal for a considerable time, then suddenly deteriorated. This pointed strongly to the influence of digestion products from the eelworms. Further experiments in petri dishes showed that the bacteria were stimulated by the *Rhaditis* and *vice versa:* they were not merely carried around by the eelworms. With an insufficient supply of bacteria the multiplication rate of the *Rhabditis* decreased, and larvae did not mature.

Because the *Rhabditis* cannot live without bacteria, it was impossible to demonstrate what part is played by the digestion products of the bacteria in damaging the mycelium. The presence in mushroom beds of bacteria alone did not stop the formation of fruiting bodies; this happened only after *Rhabditis* had been introduced.

Interesting changes in the eelworm population were noticed during "short composting." In a sample of fresh manure there were 2,400 *Rhabditis* per 10 cu. cm. After three days, just before the first turn, there were 3,250 in the cool outsides, while all were dead in the hot centre of the stack.

If the stack is left for a fortnight the eelworms in the cooler areas multiply 50 to 100 times. Careful turning by hand, to insure that the outsides go to the middle, reduces the eelworms to a negligible quantity; but where turning machines are used and the compost is not thoroughly mixed, many eelworms survive. Complete kill is achieved by subsequent pasteurization at 135° F.

Observations on commercial mushroom farms (floor beds, no peak heat) revealed that *Rhabditis* species were most prevalent, *viz.*, *R. cylindrica*, *curvicaudata*, *brevispina*, *elongata*, *longicaudata producta* and *teres*. Less frequent were *Diplogaster* and *Cephalobus* species and the *Tylenchids*.

It was found that the " critical " population of *Rhabditis* in compost was 400-700/10 cu. cm., and that the presence of nematodes in the compost incidentally raised its pH.

During the wet autumn of 1954 there were large numbers of *Rhabditis* in the wheat-fields. As the straw dried the nematodes turned into a dormant stage, hundreds sticking together to form a rigid globular aggregation.

***Rhabditis in 10 cu. cm.**
(Average of 200 samples)

Fresh Horse-manure	Straw sheaves (Farm A)	Straw sheaves (Farm B)	Dry Straw bales (Farm C)	Damp Straw bales (Farm C)	Damp Sawdust
6,990	18	92	283	16,350	1,540

*Most prevalent species was *R. cylindrica*.

Referring to *Ditylenchus* eelworms, the author asserted that they attacked the mushroom directly; even small numbers were harmful. He had found no *Ditylenchus* in the horse-manure or straw, but only in the casing soils.

THAT IS THE QUESTION . . .

We ask some things we ought to know
In this month's Mushroom Calypso:
The May Bulletin gives the ages of Thompson,
Atkins, Cook, Griffiths and Pinkerton:
Was it lack of Mr. Bleazard's permission
Or quite an unintentional omission,
That our Chairman's age was not given?
Though his photo makes him thirty-seven,
A likely age for a chair in culture-horti,
Since we all know that ' Life begins at Forty '
Yes! We ask some things we ought to know
In this month's Mushroom Calypso.

F.P.

Mr. Bleazard's age is 53. His other vital statistics are :—36-35-38. Height 5′6″ and weight, 11 st. 4 lb.—Ed.

leading MGA

Mushroom Growers All agree that—

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T. J. Poupart Ltd., Covent Garden, London, W.C.	105	0	0
Francis Nicholls Ltd., Smithfield Market, Birmingham	157	10	0
Reuben Levy Ltd., 88 Spitalfields Market, London, S.E.1	3	0	2
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***Spawn Merchants:—**

Monlough Food Production Co. Ltd., Ballygowan, Belfast.
S. A. F. Sampson Ltd., Oving, Chichester, Sussex.
Pinkerton's Scottish Mushroom Laboratories, Millerston, Glasgow.
H. Mount & Sons Ltd., Littlebourne, Canterbury, Kent.
W. Darlington & Sons Ltd., Southcourt Road, Worthing, Sussex.
Geo. Monro Ltd., Hertford Road, Waltham Cross, Herts.

T. A. Smith, of G. W. Smith & Son (Thorpe) Ltd., Thorpe, Wakefield, Yorks.	2	2	0

*Amounts collected by spawn merchants are not for publication.

Sundriesmen:—	£	s.	d.
Shirley Organics Ltd., Vicarage Wharf, Battersea, S.W.11 (activators)	25	0	0
D. C. Bushell & Co. Ltd., Sandhurst, Camberley, Surrey (manure merchants)	10	10	0
Thos. Elliott Ltd., Eagle Mills, New Church Road, S.E.5 (manure, activators, sundries)	10	10	0

LAST MONTH'S PUBLICITY CONTRIBUTIONS

The Publicity Committee once again take pleasure in acknowledging the following contributions to the MGA Publicity Fund.

***Spawn Merchants:—**

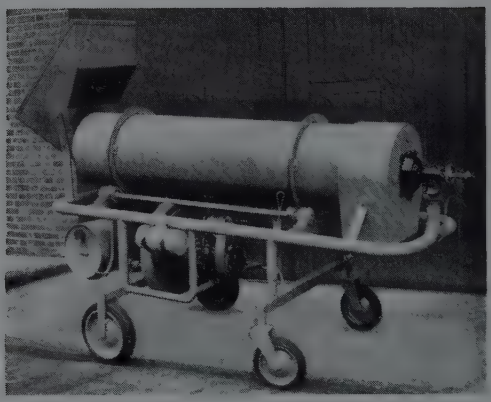
H. Mount & Sons Ltd., Littlebourne, Canterbury.
W. Darlington & Sons Ltd., Southcourt Road, Worthing.
S. A. F. Sampson Ltd., Oving, Chichester.
Monlough Food Production Co. Ltd., Ballygowan, Belfast.
Geo. Monro Ltd., Hertford Road, Waltham Cross.

Sundriesmen:—	£	s.	d.
Stable Manures Ltd., Newmarket and Worthing	40	0	0
Arthur Coomer Ltd., Grove Road, Farlington, Portsmouth	10	10	0
Salesmen:—			
Jackson & Lakin Ltd., Nottingham	5	3	8
Reuben Levy Ltd., Spitalfields Market, S.E.1	2	7	11
†C. Snowdon & Co. Ltd., Sheffield	4	8	1

*Previous (1958) contributions already acknowledged

†Amounts collected by spawn merchants are not for publication

SEEN THIS?



Pictured above is the Terra Force, a steam soil sterilising machine unit made in Switzerland, on behalf of which, it is claimed, soil sterilising costs may be halved.

This steriliser, which will deal with 3-4 tons of soil per hour, works on a revolutionary but simple process. The damp soil or peat to be sterilised, is fed into a revolving drum about 6′ 6″ long, fitted with internal " flights " to shower it. At the opposite end of the drum to the feeding hopper a special oil burner throws a long flame across and through the showering soil, creating flash temperatures of 500 to 1,200 degrees C. Part of the moisture in the soil is turned into steam and the sterilisation process is completed. The soil or peat is discharged at any temperature up to 210° F. without burning.

The drum or barrel is adjustable for angle and this controls the speed of the through-put. One great advantage of this process is that sterilisation can begin within a matter of minutes of starting the machine up.

In company with Mr. G. W. Baker and Mr. A. D. Jones of The Broadham Produce Co. Ltd., Oxted, I saw this machine demonstrated at Marsden Nurseries, Ashstead, Surrey, by Mr. R. K. Stewart, a member of the firm. Said Mr. Stewart, " This machine is satisfactory in every way and I wouldn't be without it."

The machine weighs nearly 9 cwt. and is powered by a 3½ h.p. petrol engine. It can be driven by electric motor if preferred. It is mounted on wheels, with the wheel base adjustable down to 4′ 6″. Overall height is just under 7′ and the total cost is £600. Wheels can be turned round in 180°.

An experiment with peat showed that this machine was able to deal with this medium quite satisfactorily and neither Mr. Baker, Mr. Jones or I were able to detect any sign of oil fumes from the sterilised peat.

The machine is being marketed by Reed Bros. (Engineering) Ltd., Woolwich Industrial Estate, London, S.E.18. WRA

A PAGE OF PICTURES . . .

WHICH FOR LACK OF SPACE COULD NOT BE PUBLISHED BEFORE

The picture from Greenacre Graded Mushrooms (Mr. R. Duthy) referred to on page 269.

Remember that snow earlier this year? This is how Messrs. Edwards and Stocking of Rutland overcame the difficulty for two days when drifts blocked the road. T. Dusynoky and C. Edwards are "mushing" it.

The Maywick Mushroom House sterilizer, described in Bulletin No. 98 (p. 54). It is marketed by Maywick Appliances, Wickford, Essex.

Those "mushroom" ear-rings provided quite a stir at Eastbourne. Miss M. Kolk, formerly with the MGA, is wearing them.

HERE AND THERE

Anne Pratt and Anne Turner, two 18-year old students at Birmingham College of Catering, received a tremendous amount of publicity when, at the college's "Open Day," they set out to prove that two old-age pensioners can eat quite well on £2 a week.

Mushrooms appeared twice on the list of a complete week's menus —on toast.

In a subsequent article in the *Birmingham Mail*, the students said "We think some people have all sorts of mistaken ideas about the price of food. Mushrooms, for instance, are often thought to be a luxury but a $\frac{1}{4}$ lb. of them will do two pensioners for two meals. It will only cost them 1s. 3d."

The Paris edition of the *New York Herald Tribune* reports that a mushroom grower from Valence has purchased a disused railway tunnel from the French Government for about £1,600. The tunnel, situate in central France, is about a mile long. It is the Tracol Tunnel, abandoned three years ago. Included in the purchase, completed between the unnamed buyer and the *Administration des Domaines*, is a guard house at one end. The tunnel is located 3,000 ft. above sea level. The new buyer proposes to seal the openings and to instal oil fuel burners.

FANCY THAT!

New Stamp: An extract from the *Manchester Evening News* states that the Czechoslovak Post Office is to issue 50 special stamps this year—"even one to the glory of the Czechoslovak mushrooms."

Slow Plane?: In its issue of 3rd March, 1958, the *Southland Daily News* of Invercargill, New Zealand, carried a story about a mysterious mushroom disease in Britain. It quoted Mr. G. V. Allen's statement of four months earlier, and the story was tied to a London **(By Airmail)** by-line!

ARE YOU COVERED?

According to the London *Star* of 12th May, thousands of mushrooms were destroyed that day when fire swept through an 80-ft. long shed at Westcott, Surrey.

Continued from page 249

Packaged Food Selling, 110 Fleet Street, London, E.C.4.
Phytopathology, Monumental Printing Co., Baltimore, Maryland, USA.
Produce Packaging, Agriculture House, Knightsbridge, London, S.W.1.
Safety Equipment & Industrial Clothing, 9 Gough Square, Fleet Street, London, E.C.4.
Soil Science, The Williams & Williams Co., Baltimore 2, Maryland, USA.
Transactions of the British Mycological Society, Cambridge University Press, Bentley House, London, N.W.1.

If the journals referred to are generally available, they are most easily obtained by placing an order with your bookseller or stationer.

PUBLICITY FLASHES

The response to the appeal for increased publicity subscriptions—for 10% on a carton of spawn instead of 2d.—has been simply magnificent and, in less than a fortnight, over 50% of the Grower Members concerned have signed the authorisation. Have you? If not, do so right away. It is tremendously important.

The picture on p. 267 was taken at Colchester Rose Show and Mr. R. Duthy wrote at the time that the Show Secretary featured roses grown on mushroom compost. At the show sales of compost covered expenses.

When H.M. The Queen visited the Chelsea Show last month she saw the exhibit of the NFU Market Produce Society—a huge pyramid of flowers, fruit and vegetables with mushrooms prominently featured. Picking up one of the MGA blue prepacks the Queen exclaimed that, until that moment, she had no idea that cultivated mushrooms did not need peeling. The exhibit was awarded a Gold Medal.

What the Publicity Committee is doing

Pushing the sale of bags—12 million have now been sold and new designs are in hand: sponsoring a competition at Bournemouth in connection with the exhibition; sponsoring a recipe competition at Leeds in conjunction with Lewis's who are holding a food fair 16—28 June; preparing new recipe leaflets for specialised and general distribution; arranging for a small display card for general distribution at greengrocers: taking space at the International Pre-Packing Exhibition in London from 7—9 October; arranging, a study into the nutritional value of mushrooms; testing, many recipes before submission to the general public.

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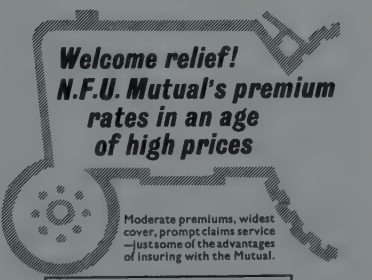
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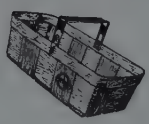

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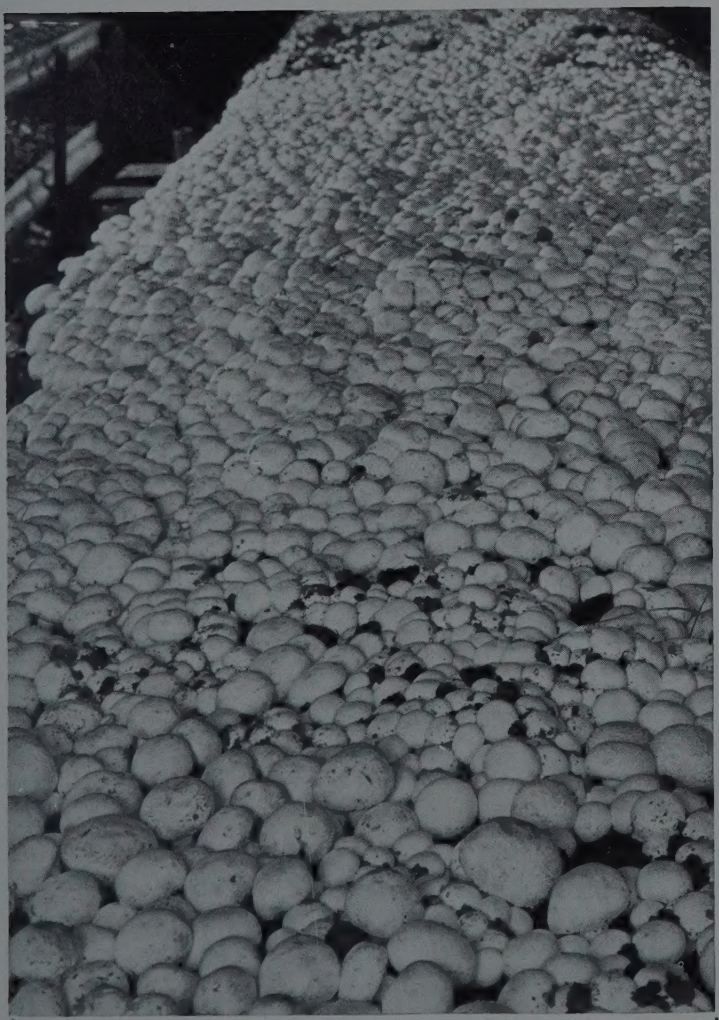

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THEN THIS IS THE PAGE

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